

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 09/402,093C
Source: IFW/6
Date Processed by STIC: 7/8/05

ENTERED



IFW16

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/402,093C

DATE: 07/08/2005

TIME: 11:47:16

Input Set : A:\Sequence Listing.txt
 Output Set: N:\CRF4\07082005\I402093C.raw

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4 <110> APPLICANT: Ohsuye, Kazuhiro
5     Yabuta, Masayuki
6     Suzuki, Yuji
8 <120> TITLE OF INVENTION: Process for Producing Peptides Using a
9     Helper Peptide
11 <130> FILE REFERENCE: 001560-373
13 <140> CURRENT APPLICATION NUMBER: US 09/402,093C
14 <141> CURRENT FILING DATE: 1999-09-29
16 <150> PRIOR APPLICATION NUMBER: PCT/JP99/00406
17 <151> PRIOR FILING DATE: 1999-01-29
19 <150> PRIOR APPLICATION NUMBER: JP 10-32272
20 <151> PRIOR FILING DATE: 1998-01-30
22 <160> NUMBER OF SEQ ID NOS: 70
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 4
28 <212> TYPE: PRT
29 <213> ORGANISM: Artificial Sequence
31 <220> FEATURE:
32 <223> OTHER INFORMATION: Amino acid sequence adjacent to a site cleaved by
33     enterokinase
35 <400> SEQUENCE: 1
36 Asp Asp Asp Lys
37 1
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 4
42 <212> TYPE: PRT
43 <213> ORGANISM: Artificial Sequence
45 <220> FEATURE:
46 <223> OTHER INFORMATION: Amino acid sequence adjacent to a site cleaved by
47     blood coagulation Factor Xa
49 <400> SEQUENCE: 2
50 Ile Glu Gly Arg
51 1
54 <210> SEQ ID NO: 3
55 <211> LENGTH: 7
56 <212> TYPE: PRT
57 <213> ORGANISM: Artificial Sequence
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Amino acid sequence containing a site cleaved by
61     renin
63 <400> SEQUENCE: 3
64 Pro Phe His Leu Leu Val Tyr

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P.b

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65 1 5
68 <210> SEQ ID NO: 4
69 <211> LENGTH: 6
70 <212> TYPE: PRT
71 <213> ORGANISM: Artificial Sequence
73 <220> FEATURE:
74 <223> OTHER INFORMATION: Amino acid sequence of helper peptide
76 <400> SEQUENCE: 4
77 Val Asp Asp Asp Asp Lys
78 1 5
81 <210> SEQ ID NO: 5
82 <211> LENGTH: 6
83 <212> TYPE: PRT
84 <213> ORGANISM: Artificial Sequence
86 <220> FEATURE:
87 <223> OTHER INFORMATION: Amino acid sequence of helper peptide
89 <400> SEQUENCE: 5
90 Gly Cys His His His His
91 1 5
94 <210> SEQ ID NO: 6
95 <211> LENGTH: 10
96 <212> TYPE: PRT
97 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
100 <223> OTHER INFORMATION: Amino acid sequence containing a chemically
101 cleaved site
103 <400> SEQUENCE: 6
104 Pro Gly Gly Arg Pro Ser Arg His Lys Arg
105 1 5 10
108 <210> SEQ ID NO: 7
109 <211> LENGTH: 10
110 <212> TYPE: PRT
111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Amino acid sequence of helper peptide
116 <400> SEQUENCE: 7
117 His Arg His Lys Arg Ser His His His
118 1 5 10
121 <210> SEQ ID NO: 8
122 <211> LENGTH: 5
123 <212> TYPE: PRT
124 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Amino acid sequence containing a site cleaved by
128 Kex2 Protease
130 <400> SEQUENCE: 8
131 Ser Asp His Lys Arg
132 1 5
135 <210> SEQ ID NO: 9

RAW SEQUENCE LISTING DATE: 07/08/2005
PATENT APPLICATION: US/09/402,093C TIME: 11:47:16

Input Set : A:\Sequence Listing.txt
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136 <211> LENGTH: 23
137 <212> TYPE: PRT
138 <213> ORGANISM: Artificial Sequence
140 <220> FEATURE:
141 <223> OTHER INFORMATION: Amino acid sequence containing a position cleaved
142 by OmpT
144 <400> SEQUENCE: 9
145 Gln Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His
146 1 5 10 15
147 Arg Trp Gly Arg Ser Gly Ser
148 20
151 <210> SEQ ID NO: 10
152 <211> LENGTH: 20
153 <212> TYPE: PRT
154 <213> ORGANISM: Artificial Sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: Amino acid sequence containing a position cleaved
158 by OmpT
160 <400> SEQUENCE: 10
161 Gln Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His
162 1 5 10 15
163 Gly Ser Gly Ser
164 20
167 <210> SEQ ID NO: 11
168 <211> LENGTH: 69
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Nucleotide sequence coding for an amino acid
174 sequence containing a site cleaved by OmpT
176 <400> SEQUENCE: 11
177 cagatgcatg gttatgacgc ggagctccgg ctgtatcgcc gtcatcacccg gtggggcgt 60
178 tccggatcc 69
180 <210> SEQ ID NO: 12
181 <211> LENGTH: 23
182 <212> TYPE: PRT
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: Amino acid sequence containing a site cleaved by
187 OmpT
189 <400> SEQUENCE: 12
190 Gln Met His Gly Tyr Asp Ala Glu Leu Arg Leu Tyr Arg Arg His His
191 1 5 10 15
192 Arg Trp Gly Arg Ser Gly Ser
193 20
196 <210> SEQ ID NO: 13
197 <211> LENGTH: 47
198 <212> TYPE: DNA
199 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING DATE: 07/08/2005
PATENT APPLICATION: US/09/402,093C TIME: 11:47:16

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201 <220> FEATURE:
202 <223> OTHER INFORMATION: Nucleotide sequence coding for an amino acid
203 sequence containing a site cleaved by OmpT
205 <400> SEQUENCE: 13
206 tggttatgac gcggagctcc gcctgtatcg ccgtcatcac ggttccg 47
208 <210> SEQ ID NO: 14
209 <211> LENGTH: 55
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Nucleotide sequence coding for an amino acid
215 sequence containing a site cleaved by OmpT
217 <400> SEQUENCE: 14
218 gatccggAAC cgtgatgacg gcgatacagg cggagctccg cgtcataacc atgca 55
220 <210> SEQ ID NO: 15
221 <211> LENGTH: 24
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Primer
228 <400> SEQUENCE: 15
229 gactcagatc ttcctgaggc cgat 24
231 <210> SEQ ID NO: 16
232 <211> LENGTH: 36
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Primer
239 <400> SEQUENCE: 16
240 aaaggtacct tccgcatgcc gcggatgtcg agaagg 36
242 <210> SEQ ID NO: 17
243 <211> LENGTH: 20
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: Primer
250 <400> SEQUENCE: 17
251 aggccaggaa ccgtaaaaag 20
253 <210> SEQ ID NO: 18
254 <211> LENGTH: 29
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Primer
261 <400> SEQUENCE: 18
262 aaaatgcatac gcatacgtaac cgtgcatact 29
264 <210> SEQ ID NO: 19
265 <211> LENGTH: 627
266 <212> TYPE: DNA

RAW SEQUENCE LISTING DATE: 07/08/2005
 PATENT APPLICATION: US/09/402,093C TIME: 11:47:16

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 Output Set: N:\CRF4\07082005\I402093C.raw

267 <213> ORGANISM: Artificial Sequence
 269 <220> FEATURE:
 270 <223> OTHER INFORMATION: Nucleotide sequence coding for a fusion protein
 271 comprising GLP-1, helper peptide and
 272 beta-galactosidase protective peptide
W--> 274 <221> NAME/KEY: CDS
 275 <222> LOCATION: (82)...(543)
W--> 277 <400> 19
 278 cccaggctt acactttatg cttccggctc gtagtttg tggaaatttg agccggataac 60
 279 aatttcacac aggaaacagc t atg acc atg att acg gat tca ctg gcc gtc 111
 280 Met Thr Met Ile Thr Asp Ser Leu Ala Val
 281 1 5 10
 283 gtt tta caa cgt aaa gac tgg gat aac cct ggc gtt acc caa ctt aat 159
 284 Val Leu Gln Arg Lys Asp Trp Asp Asn Pro Gly Val Thr Gln Leu Asn
 285 15 20 25
 287 cgc ctt gca gca cat ccc cct ttc gcc agc tgg cgt aat agc gac gac 207
 288 Arg Leu Ala Ala His Pro Pro Phe Ala Ser Trp Arg Asn Ser Asp Asp
 289 30 35 40
 291 gcc cgc acc gat cgc cct tcc caa cag ttg cgc agc ctg aat ggc gaa 255
 292 Ala Arg Thr Asp Arg Pro Ser Gln Gln Leu Arg Ser Leu Asn Gly Glu
 293 45 50 55
 295 tgg cgc ttt gcc tgg ttt ccg gca cca gaa gcg gtg ccg gca agc ttg 303
 296 Trp Arg Phe Ala Trp Phe Pro Ala Pro Glu Ala Val Pro Ala Ser Leu
 297 60 65 70
 299 ctg gag tca gat ctt cct gag gcc gat act gtc gtc gtc ccc tca aac 351
 300 Leu Glu Ser Asp Leu Pro Glu Ala Asp Thr Val Val Val Pro Ser Asn
 301 75 80 85 90
 303 tgg cag atg cac ggt tac gat gcg atg cat ggt tat gac gcg gag ctc 399
 304 Trp Gln Met His Gly Tyr Asp Ala Met His Gly Tyr Asp Ala Glu Leu
 305 95 100 105
 307 cgc ctg tat cgc cgt cat cac ggt tcc gga tcc cct tct cga cat ccg 447
 308 Arg Leu Tyr Arg Arg His His Gly Ser Gly Ser Pro Ser Arg His Pro
 309 110 115 120
 311 cgg cat gcg gaa ggt acc ttt acc agc gat gtg agc tcg tat ctg gaa 495
 312 Arg His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu
 313 125 130 135
 315 ggt cag gcg gca aaa gaa ttc atc gcg tgg ctg gtg aaa ggc cgt ggt 543
 316 Gly Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 317 140 145 150
 319 taagtcgaca gccccctaa tgagcgggct ttttttctc ggaattaatt ctcatgtttg 603
 320 acagcttac atcgataagc tta 627
 322 <210> SEQ ID NO: 20
 323 <211> LENGTH: 154
 324 <212> TYPE: PRT
 325 <213> ORGANISM: Artificial Sequence
 327 <220> FEATURE:
 328 <223> OTHER INFORMATION: Amino acid sequence of a fusion protein comprising
 329 GLP-1, helper peptide and beta-galactosidase
 330 protective peptide

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/08/2005
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:25; Xaa Pos. 6
Seq#:41; Xaa Pos. 2
Seq#:42; Xaa Pos. 2
Seq#:49; Xaa Pos. 2
Seq#:50; Xaa Pos. 2
Seq#:51; Xaa Pos. 2
Seq#:52; Xaa Pos. 2
Seq#:53; Xaa Pos. 2
Seq#:54; Xaa Pos. 2
Seq#:61; Xaa Pos. 2
Seq#:62; Xaa Pos. 2
Seq#:63; Xaa Pos. 2
Seq#:64; Xaa Pos. 2
Seq#:65; Xaa Pos. 2
Seq#:66; Xaa Pos. 2
Seq#:69; Xaa Pos. 2
Seq#:70; Xaa Pos. 2

VERIFICATION SUMMARY

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Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\07082005\I402093C.raw

L:274 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:277 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:19
L:489 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:493 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:25
L:494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:523 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:527 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:27
L:602 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:606 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:32
L:621 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:625 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:33
L:640 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:644 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:34
L:757 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:761 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:41
L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:776 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:780 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:42
L:784 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:42
L:785 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:814 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:818 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:44
L:848 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:852 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46
L:882 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:886 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:48
L:901 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:905 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
L:906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
L:920 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:924 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:50
L:928 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:50
L:929 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:943 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:947 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:51
L:948 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:962 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:966 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:52
L:970 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:52
L:971 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:985 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:989 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:53
L:990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:1004 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1008 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
L:1012 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
L:1013 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
L:1042 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!

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L:1046 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:56
L:1076 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1080 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:58
L:1110 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1114 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
L:1129 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1133 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
L:1134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:1148 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1152 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:1156 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
L:1157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:0
L:1171 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1175 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
L:1176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:1190 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1194 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:1198 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
L:1199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
L:1213 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1217 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:65
L:1218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
L:1232 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1236 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
L:1240 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
L:1241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0
L:1270 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1274 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:68
L:1289 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1293 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:69
L:1294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:0
L:1308 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1312 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:70
L:1316 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:70
L:1317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:0